MA 36 M(85)-1

Radio and Television Receivers, Phonographs, and Related Equipment

1985

U.S. Department of Commerce
BUREAU OF THE CENSUS

MA36M(85)-1
Issued September 1986

SUMMARY OF FINDINGS

During 1985, the total value of shipment of consumer electronics covered by this survey was $5,741 million, a decrease of 4 percent from the 1984 value of $6,429 million. The 1985 figure includes home, portable, and automobile radios, $694 million, television receivers, $4,108 million; phonographs and high-fidelity components, $112 million; and loudspeakers, microphones, kits, and commercial sound equipment, $827 million.

A description of the survey methodology and other related information appears on page 9.

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Table 1. VALUE OF SHIPMENTS OF RADIO AND TELEVISION RECEIVERS, PHONOGRAPHS, AND RELATED EQUIPMENT, BY SELECTED PRODUCTS: 1975 TO 1985

(Millions of current dollars)

Product code	Product description	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975
36511	Household and automobile radios, and radio phonograph combinations.....	694.1	1,241.8	987.7	786.2	778.8	708.0	932.3	942.5	827.0	838.7	687.8
36512	Television receivers, including television combinations.....	4,108.0	4,120.4	3,681.5	3,324.0	3,495.1	3,297.3	2,914.3	2,784.7	2,439.1	2,239.0	1,928.8
36514	Recorders, phonographs, and radio and television chassis[1].....	112.3	165.5	225.2	335.7	[1]499.9	[1]513.9	[1]575.6	[1]735.4	[1]627.2	[1]433.9	332.6
36515	Speaker systems, microphones, home-type electronic kits, and commercial sound equipment, including public address systems[2].....	827.1	901.7	802.4	778.5	813.4	792.8	817.4	897.2	747.2	566.5	530.4

[1]Product class 36514 was revised in survey MA36M for 1976 to 1982 to include phonograph cartridges, pickups, styli, and earphones and headsets (except telephone type), codes 36514 10, 14, and 15. These products are included in industry 3679 in the census of manufactures.
[2]This product class should be considered in conjunction with product class 36622, broadcast, studio, and related equipment, as published in Current Industrial Reports Series MA36N, Selected Electronic and Associated Products, Including Telephone and Telegraph Apparatus for 1984 and prior years and MA36P, Communication Equipment, Including Telephone, Telegraph, and Other Electronic Systems and Equipment beginning with 1985.

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Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Jack Matthews, (301) 763-1462.
For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

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Table 2. QUANTITY AND VALUE OF SHIPMENTS OF RADIO AND TELEVISION RECEIVERS, PHONOGRAPHS, AND RELATED EQUIPMENT: 1985 AND 1984

(Quantity in number of units; value in thousands of dollars)

Product code	Product description	Number of companies	1985		1984	
			Quantity	Value	Quantity	Value
36511 —	Home, portable, and automobile radios and radio-phonograph-tape recorder combinations	16	5,743,017	694,078	9,792,921	1,241,808
	Home radio receivers (excluding high-fidelity receivers, radio phonograph combinations, and television receivers)	(X)				
	Electrically powered	(X)				
	Table models (except clock)	(X)				
36511 01	AM	-				
36511 02	AM-FM and FM	1				
	Clock models	-				
36511 03	AM	-	(D)	(D)	(D)	(D)
36511 05	AM-FM and FM	-				
	Portable, battery operated	(X)				
36511 21	AM	1				
36511 24	AM-FM and FM	1				
36511 25	Other home radios, including consoles	-				
	Radio-phonograph-tape recorder combinations (any combination)	(X)				
	Table and portable (excluding high-fidelity compact systems)	(X)				
36511 11	Monaural	-				
36511 12	Stereo or quadraphonic	-	(D)	(D)	(D)	(D)
	Console model	(X)				
36511 18	Monaural	-				
36511 19	Stereo or quadraphonic	2				
	Automobile radios	(X)	5,453,732	691,526	9,468,277	1,238,712
36511 31	AM	5				
36511 32	AM-FM	4	(D)	(D)	(D)	(D)
36511 33	AM-FM stereo	4				
36511 34	AM-FM with tape player	10	3,190,669	476,202	4,903,524	834,821
36511 36	Tape players and other complete automotive audio components sold separately (except speakers)	3	(D)	(D)	(D)	(D)
36512 —	Household television receivers, including television combinations	16	13,715,738	4,108,021	11,737,919	4,120,394
	Table and portable models	(X)	9,864,998	2,375,891	8,313,613	2,466,454
36512 11	Monochrome, 10 inches or less	-	-	-	-	-
36512 12	Monochrome, over 10 through 17 inches	-	-	-		
36512 13	Monochrome, over 17 inches	-	-	-	167,267	27,076
36512 14	Color, 10 inches or less	3				
36512 15	Color, over 10 through 17 inches	11	2,293,706	360,082	2,044,000	396,359
36512 16	Color, over 17 inches	15	[1]7,571,292	[1]2,015,809	[r]6,102,346	[1]2,043,019
	Console and consolette models	(X)	3,850,740	1,732,130	3,424,306	1,653,940
36512 03	Monochrome	-	-	-	-	-
36512 04	Color	16	3,850,740	1,732,130	3,424,306	1,653,940
	TV, radio, phonograph, and tape recorder combination models	(X)	(1)	(1)	(1)	(1)
36512 05	Monochrome	-	-	-	-	-
36512 20	Color	2	(1)	(1)	(1)	(1)
36512 21	Color with video tape recorder	-	-	-	-	-
36514 —	Recorders, phonographs, high-fidelity components, and radio and television chassis	52	[2]585,375	[2]112,267	[2]1,067,298	[2]165,453
36514 01	Mechanical (acoustical) phonographs	1	(D)	(D)	(D)	(D)
	Phonographs (except mechanical):					
36514 02	Coin operated (including remote speakers and controls)	3	(D)	(D)	(D)	(D)
	Portable, table and console (except high-fidelity and compact and component systems):					
36514 11	Monophonic	7	595,613	12,993	913,167	20,645
36514 12	Stereophonic	6	11,884	3,148	21,569	3,578
36514 13	Stereo compact systems	2	(D)	(D)	(D)	(D)
	Consumer high-fidelity components	(X)	[2]227,434	[2]53,714	[2]222,745	[2]50,186
	Receivers (tuner-amplifier combinations)	(X)	(D)	(D)	(D)	(D)
36514 71	Stereophonic	2	(D)	(D)	(D)	(D)
36514 72	Quadraphonic	-	-	-	-	-
36514 73	Tuners (AM-FM and FM)	3	(D)	(D)	(D)	(D)
36514 74	Preamplifier-control units	11	19,023	5,990	26,205	6,860
	Power amplifiers	(X)	97,940	43,825	99,638	44,602
36514 75	Monophonic	2				
36514 76	Stereophonic	15	97,940	43,825	[r]99,638	[r]44,602
36514 77	Quadraphonic	-	-	-	-	-
	Turntables (record players)	(X)	(D)	(D)	(D)	(D)
36514 05	Automatic changer	1				
36514 06	Manual	1	(D)	(D)	(D)	(D)
36514 07	Record changer mechanisms (sold OEM)	1	(D)	(D)	(D)	(D)
36514 08	Manual turntable mechanisms (sold OEM)	-	-	-	-	-
36514 09	Phonograph arms (sold separately)	2	(D)	(D)	(D)	(D)
36799 01	Earphones and headsets, except telephone	7				
36799 03	Phonograph cartridges and pickups	6	6,107,573	34,754	[r]8,791,708	36,355
36799 05	Phonograph needles and styli	9				

See footnotes at end of table.

Table 2. QUANTITY AND VALUE OF SHIPMENTS OF RADIO AND TELEVISION RECEIVERS, PHONOGRAPHS, AND RELATED EQUIPMENT: 1985 AND 1984--Continued

(Quantity in number of units; value in thousands of dollars)

Product code	Product description	Number of companies	1985		1984	
			Quantity	Value	Quantity	Value
	Consumer audio and video recorders and players (except radio-phonograph-TV-recorder combinations, office recording machines, and recorder mechanisms) and other home-type electronic equipment sold separately	(X)	135,188	24,117	478,597	57,773
	Audio tape recorders and players	(X)	107,192	11,036	107,013	11,443
36514 35	Reel to reel	1	2,071	2,362	2,013	2,076
36514 36	Cartridge	2				
36514 37	Cassette	3	105,121	8,674	105,000	9,367
	Video recorders and players, complete	(X)	(D)	(D)	(D)	(D)
36514 41	Tape cartridge	-	-	-	-	-
36514 42	Disc	1	(D)	(D)	(D)	(D)
36514 68	Other home-type electronic equipment (converters, adapters, etc.)	11	47,853	7,087	r157,461	r7,342
36514 86	TV chassis, for sale separately	-	-	-	(D)	(D)
36515 --	Speaker systems, microphones, home-type electronic kits, and commercial sound equipment, including public address systems	106	43,330,829	827,069	73,049,452	901,748
	Loudspeaker systems (one or more speakers mounted in a single enclosure)	(X)	7,717,841	437,837	5,675,258	393,232
36515 56	Bookshelf (designed to be supported on shelves or pieces of furniture)	35	a3,161,525	a170,473	2,305,676	142,880
36515 57	Floor standing (designed with or without base can only be placed on floor because of weight or bulk restrictions)	35	4,224,438	242,911	3,035,603	214,527
36515 68	Other loudspeaker systems	15	331,878	24,453	333,979	r35,825
36515 54	Loudspeakers sold separately, including radio, television, and automobile radio speakers	44	32,613,660	a248,223	64,851,674	376,186
36515 55	Microphones (carbon, dynamic, and other)	18	1,787,416	45,709	1,246,508	44,225
36515 67	Home entertainment equipment kits (amplifiers, audio preamplifiers, audio tuners, and other n.e.c.)	4				
36515 93	Music distribution systems (FM multiplex subscriber service)	3	1,211,912	93,300	1,276,012	88,105
36515 94	Public address systems	21				

Note: The percent of estimation of each item is indicated as follows (see "Description of Survey" for a discussion of estimation of missing reports): a10 to 25 percent of this item is estimated.

- Represents zero. (D) Data withheld to avoid disclosing figures for individual companies. N.e.c. Not elsewhere classified. rRevised by 5 percent or more from previously published figures. (X) Not applicable.

[1] Product codes 36512 05, 36512 20 and 36512 21 are included with product code 36512 16 to avoid disclosing data for individual companies.
[2] Total for product class 35614 does not include product codes 36799 01, 36799 03, 36799 05.

Table 3. COMPARISON OF VALUES OF SHIPMENTS OF RADIO AND TELEVISION RECEIVERS, PHONOGRAPHS, AND RELATED EQUIPMENT, AS REPORTED IN THE MA36M, THE 1984 ANNUAL SURVEY OF MANUFACTURES, AND THE 1982 CENSUS OF MANUFACTURES

(Value in thousands of dollars)

Product code	Product description	1984			1982	
			Annual Survey of Manufactures			
		MA36M	Value	Standard error of estimates[1]	MA36M	Census of Manufactures
3651	Radio and television receiving sets	(X)	6,952.1	2	(X)	5,434.8
36511	Household and automobile radios and radio-phonograph combinations	1,241.8	1,276.9	2	786.2	788.1
36512	Television receivers, including television combinations	4,120.4	4,307.0	2	3,324.0	3,357.2
36514	Recorders, phonographs, and radio and television chassis	165.5	217.7	6	335.7	337.1
36515	Speaker systems, microphones, home type electronic kits and commercial sound equipment, including public address systems	901.7	948.1	4	778.5	783.1
36510 00	Radio and television receiving sets n.s.k., typically for establishment with 5 employees or more					
36510 02	Radio and television receiving sets n.s.k., typically for establishment with less than 5 employees	(2)	202.3	5	(2)	169.3
36799 pt.	Earphones and headsets, phonograph cartridges, needles, styli, etc.	37.1	(NA)	(NA)	60.1	(NA)

Note: In the 1982 Census of Manufactures, shipments data for establishments of small companies (typically those with fewer than 5 employees) were estimated from administrative records data rather than collected on census questionnaires. These shipments are included in product code 36510 02. Products not adequately identified by detail product code were coded to the appropriate industry (four digits) followed by "000."

pt. Partial. (NA) Not available. N.s.k. Not specified by kind. (X) Not applicable.

[1] The annual survey of manufactures percentage standard errors shown are the approximate relative errors of the estimates of level. A more detailed description of the standard error of estimate is given in the introduction of the annual survey of manufactures, Value of Product Shipments, M84(AS)-2, under "Qualifications of the Data."
[2] Detail data available only for the census of manufactures. A substantial portion of these data are derived from administrative records.

Table 4. SHIPMENTS, EXPORTS, IMPORTS, AND APPARENT CONSUMPTION OF CONSUMER AUDIO AND VIDEO ELECTRONICS: 1985

(Quantity in number of units; value in thousands of dollars)

Product code[1]	Product description	Manufacturers' shipments		Exports of domestic merchandise[1,2]			Percent exports to manufacturers' shipments	
		Quantity	Value f.o.b. plant	Quantity	Value at port	Estimated producers' value[3]	Quantity	Value
	Television receivers, whether or not combined with radio, phonograph, and/or tape player:							
36512 03,05,11 12,13	Monochrome	13,715,738	4,108,021	100,699	11,561	10,915	3	2
36512 04,14,15,16, 20,21	Color (including all TV combinations and consoles			272,019	88,996	84,022		
36514 86,36629 11[4] 36515 67	Home entertainment equipment kits and TV chassis	(X)	(NA)	3,219,713	88,141	83,214	(NA)	(NA)
36515 56,57,68,54	Loudspeakers	40,331,501	686,060	5,263,514	68,318	64,500	13	10
36514 74,75,76,77 36622 12[4]	Audio-frequency electric amplifiers and preamplifiers	369,963	150,792	252,312	30,972	29,241	68	19
36515 55	Microphones	1,787,416	45,709	983,042	17,065	16,112	55	35
36511 31,32,33,34, 36	Automotive radio receivers, tape players, and/or recorders	5,453,732	691,526	684,576	72,093	68,064	13	10
36511 01,02,03,05 21,24,25 36514 71,72,73	Radio receivers (other than automotive and combinations)	(D)	(D)	522,713	13,986	13,205	(NA)	(NA)
36511 11,12,18,19	Radio-phonograph-tape recorder combinations	(D)	(D)	62,547	15,087	14,244	(NA)	(NA)
36514 01,02,11,12 13,05,06,07,08, 09, 36799 03,05	Phonographs, record players, cartridges, and styli	5,777,512	79,538	59,429	17,067	16,113	(NA)	20
36514 35,36,37 36622 17[4]	Audio tape recorders and players (except automotive and office type)	(X)	101,422	163,204	34,691	32,752	(NA)	32
36514 41,42 36622 29[4]	Video tape recorders and players	(X)	(NA)	43,394	82,766	78,140	(NA)	(NA)

Product code[1]	Product description	Imports for consumption[1,5]		Apparent consumption[7]		Percent imports to apparent consumption	
		Quantity	Value[6]	Quantity	Value	Quantity	Value
	Television receivers, whether or not combined with radio, phonograph, and/or tape player:						
36512 03,05,11, 12,13	Monochrome	4,834,123	273,186	28,500,818	5,674,901	53	29
36512 04,14,15, 16,20,21	Color (including all TV combinations and consoles)	10,323,675	1,394,251				
36514 86,36629 11[4] 36515 67	Home entertainment equipment kits and TV chassis	(X)	895,446	(NA)	(NA)	(NA)	(NA)
36515 56,57,68,54	Loudspeakers	61,772,624	409,628	96,840,611	1,031,188	64	40
36514 74,75,76,77 36622 12[4]	Audio-frequency electric amplifiers and preamplifiers	4,631,863	289,271	4,749,514	410,822	98	71
36515 55	Microphones	2,238,086	31,264	3,042,460	60,861	74	51
36511 31,32,33,34 36	Automotive radio receivers, tape players, and/or recorders	23,499,379	1,480,628	28,268,535	2,104,090	83	70
36511 01,02,03,05, 21,24,25 36514 71,72,73	Radio receiver (other than automotive and combinations)	43,503,748	692,040	(NA)	(NA)	(NA)	(NA)
36511 11,12, 18,19	Radio-phonograph-tape recorder combinations	(X)	1,949,372	(NA)	(NA)	(NA)	(NA)
36514 01,02,11,12 13,05,06,07,08, 09,14,15	Phonographs, record players, cartridges, and styli	(X)	429,475	(NA)	492,900	(NA)	87
36514 35,36,37 36622 17[4]	Audio tape recorders and players (except automotive and office type)	(X)	554,348	(NA)	623,018	(NA)	89
36514 41,42 36622 29[4]	Video tape recorders and players	16,692,238	4,573,658	(NA)	(NA)	(NA)	(NA)

(D) Data withheld to avoid disclosing figures for individual companies. (NA) Not available. Data not collected separately or not adequately comparable.
(X) Not applicable.

[1] For comparison of SIC-based product codes with Schedule B export numbers and TSUSA import numbers, see table 6.

[2] Source: Bureau of the Census report EM 546, U.S. Exports.

[3] These values were derived by use of adjustment factors to exclude freight, insurance, and other charges incurred in moving goods to the port of export. This adjustment is made to convert the values to an approximation of the producers' value of exported goods. Current adjustment factors are based on data for 1983 which are published in Origin of Exports of Manufactured Products, M83(AS)-5, appendix B. The adjustment factor for this report is 0.9441.

[4] Collected on the 1985 annual Current Industrial Report, MA36P, Communication Equipment, Including Telephone, Telegraph, and Other Electronic Systems and Equipment, issued August 1986.

[5] Source: Bureau of the Census report IM 245-X; U.S. Imports for Consumption and General Imports.

[6] This dollar value represents the c.i.f. (cost, insurance, and freight) value at the first port of entry in the United States plus U.S. import duties.

[7] Apparent consumption is derived by subtracting exports from the total of manufacturers' shipments plus imports.

Table 5. SHIPMENTS, EXPORTS, IMPORTS, AND APPARENT CONSUMPTION OF CONSUMER AUDIO AND VIDEO ELECTRONICS: 1984

(Quantity in number of units; value in thousands of dollars)

Product code[1]	Product description	Manufacturers' shipments		Exports of domestic merchandise[1,2]			Percent exports to manufacturers' shipments	
		Quantity	Value f.o.b. plant	Quantity	Value at port	Estimated producers' value[3]	Quantity	Value
	Television receivers, whether or not combined with radio, phonograph, and/or tape player:							
36512 03,05,11 12,13	Monochrome	11,737,919	4,120,394	78,841	8,044	7,594	3	3
36512 04,14,15,16, 20,21	Color (including all TV combinations and consoles			272,217	96,016	90,649		
36514 86,36629 11[4] 36515 67	Home entertainment equipment kits and TV chassis	(X)	(NA)	3,555,621	95,538	90,197	(NA)	(NA)
36515 56,57,68,54	Loudspeakers	70,562,932	769,418	5,616,301	76,868	72,543	8	10
36514 74,75,76,77 36622 12[4]	Audio-frequency electric amplifiers and preamplifiers	401,843	148,196	325,283	33,473	31,602	81	23
36515 55	Microphones	1,246,508	44,225	921,996	19,778	18,672	74	45
36511 31,32,33,34, 36	Automotive radio receivers, tape players, and/or recorders	9,468,277	1,238,712	815,539	96,054	90,685	9	8
36511 01,02,03,05 21,24,25 36514 71,72,73	Radio receivers (other than automotive and combinations)	(D)	(D)	482,247	10,898	10,289	(NA)	(NA)
36511 11,12,18,19	Radio-phonograph-tape recorder combinations	(D)	(D)	34,889	9,485	8,955	(NA)	(NA)
36514 01,02,11,12 13,05,06,07,08, 09, 36799 03,05	Phonographs, record players, cartridges, and styli	9,276,836	107,659	33,798	17,567	16,585	(NA)	16
36514 35,36,37 36622 17[4]	Audio tape recorders and players (except automotive and office type)	(X)	111,821	125,196	32,467	30,652	(NA)	29
36514 41,42 36622 29[4]	Video tape recorders and players	(X)	(NA)	8,790	62,449	58,958	(NA)	(NA)

Product code[1]	Product description	Imports for consumption[1,5]		Apparent consumption[7]		Percent imports to apparent consumption	
		Quantity	Value[6]	Quantity	Value	Quantity	Value
	Television receivers, whether or not combined with radio, phonograph, and/or tape player:						
36512 03,05,11, 12,13	Monochrome	5,347,798	310,174	24,219,830	5,524,325	53	27
36512 04,14,15, 16,20,21	Color (including all TV combinations and consoles)	7,485,171	1,197,817				
36514 86,36629 11[4] 36515 67	Home entertainment equipment kits and TV chassis	(X)	854,032	(NA)	(NA)	(NA)	(NA)
36515 56,57,68,54	Loudspeakers	44,289,871	311,698	109,200,502	1,004,248	41	31
36514 74,75,76,77 36622 12[4]	Audio-frequency electric amplifiers and preamplifiers	3,628,498	206,877	3,705,058	321,600	98	64
36515 55	Microphones	2,248,620	27,360	2,573,132	51,807	87	53
36511 31,32,33,34 36	Automotive radio receivers, tape players, and/or recorders	21,209,023	1,267,765	29,861,761	2,415,792	71	53
36511 01,02,03,05, 21,24,25 36514 71,72,73	Radio receiver (other than automotive and combinations)	48,994,248	724,975	(NA)	(NA)	(NA)	(NA)
36511 11,12, 18,19	Radio-phonograph-tape recorder combinations	(X)	1,497,442	(NA)	(NA)	(NA)	(NA)
36514 01,02,11,12 13,05,06,07,08, 09,14,15	Phonographs, record players, cartridges, and styli	(X)	266,803	(NA)	356,895	(NA)	75
36514 35,36,37 36622 17[4]	Audio tape recorders and players (except automotive and office type)	(X)	594,373	(NA)	673,727	(NA)	88
36514 41,42 36622 29[4]	Video tape recorders and players	9,587,062	3,137,472	(NA)	(NA)	(NA)	(NA)

(D) Data withheld to avoid disclosing figures for individual companies. (NA) Not available. Data not collected separately or not adequately comparable.
(X) Not applicable.

[1] For comparison of SIC-based product codes with Schedule B export numbers and TSUSA import numbers, see table 6.
[2] Source: Bureau of the Census report EM 546, U.S. Exports.
[3] These values were derived by use of adjustment factors to exclude freight, insurance, and other charges incurred in moving goods to the port of export. This adjustment is made to convert the values to an approximation of the producers' value of exported goods. Current adjustment factors are based on data for 1983 which are published in Origin of Exports of Manufactured Products, M83(AS)-5, appendix B. The adjustment factor for this report is 0.9441.
[4] Collected on Current Industrial Report MA36P, Communication Equipment, Including, Telephone, Telegraph, and Other Electronic Systems and Equipment. The 1985 report was issued August 1986.
[5] Source: Bureau of the Census report IM 245-X; U.S. Imports for Consumption and General Imports.
[6] This dollar value represents the c.i.f. (cost, insurance, and freight) value at the first port of entry in the United States plus U.S. import duties.
[7] Apparent consumption is derived by subtracting exports from the total of manufacturers' shipments plus imports.

Table 6. COMPARISON OF STANDARD INDUSTRIAL CLASSIFICATION-BASED CODES, SCHEDULE B EXPORT NUMBERS, AND TSUSA IMPORT NUMBERS

Product code	Product description	Export number[1]	Product description	Import number[2]	Product description
	Television receivers		Television receivers		Television receivers and parts thereof
	Table and portable models	685.2007	Monochrome		Having a picture tube: Complete
3651211	Monochrome, 10 inches or less				Monochrome, having a viewing screen diagonal
3651212	Monochrome, over 10 through 17 inches			684.9230	6 inches and under
3651213	Monochrome, over 17 inches			684.9232	7 and 8 inches
				684.9234	9 and 10 inches
	Console and consolette models			684.9236	11 and 12 inches
3651203	Monochrome			684.9238	13 through 17 inches
				684.9240	18 inches
				684.9245	19 inches and over
				684.9265	For direct viewing
	Table and portable models	685.2017	Color		Color, having a viewing screen diagonal
3651214	Color, 10 inches or less			684.9247	10 inches and under
3651215	Color, over 10 through 17 inches			684.9250	11 and 12 inches
3651216	Color, over 17 inches			684.9252	13 inches
				684.9254	14 and 15 inches
	Console and consolette models			684.9256	16 and 17 inches
3651204	Color			684.9258	18 and 19 inches
				684.9260	20 inches and over
				684.9270	For direct viewing
				684.9275	Other n.s.p.f.
	TV, radio, phonograph, and tape recorder combination models	685.5310	Television combinations		Radio, television, and phonograph combinations
3651205	Monochrome				Monochrome, having a viewing screen diagonal
3651220	Color			685.4908	6 inches and under
3651221	Color with video tape recorder			685.4909	Over 6 inches
				685.5018	Color
				685.4200	Radio, television, and phonograph combination n.s.p.f.
*3662911[3]	(TV receivers)		Television receivers:		Kits containing all parts necessary for
	Electronic kits to be assembled by purchaser	685.2001	Unfinished or unassembled		assembly into complete receivers
*3651567	Home entertainment equipment kits		Radio tuners, radio chassis, and kits	684.9400	Monochrome
3651486	TV chassis, for sale separately		for assembly	684.9655	Color
					Other assemblies
					Color having a viewing screen diagonal
				684.9656	12 inches and under
				684.9658	13 through 17 inches
				684.9660	18 inches and over
				684.9663	N.s.p.f.
					Television receivers, and part thereof:
					Not having a picture tube:
					Printed circuit boards and ceramic substrates with components assembled thereon; for color receivers; subassemblies containing one or more of such boards or substrates, except tuners or convergence assemblies:
					Entered with components enumerated in statistical headnote 4 (b) (i):
				684.9864	Entered with all or part of a chassis frame
				684.9866	Other
				685.0000	Other
	Speakers, microphones, home-type electronic kits, etc.	684.7020	Loudspeakers		Microphones; loudspeakers; head phones; electric amplifiers; electric sound amplifier sets comprised of the foregoing components
	Loudspeaker systems (one or more speakers mounted in a single enclosure)				Loudspeakers:
3651556	Bookshelf (designed to be supported on shelves or pieces of furniture)			684.7023	Single speakers, not enclosed
					Other
3651557	Floor standing (designed with or without integral base can only be placed on floor because of weight or bulk restrictions)			684.7025	Multiple speaker type
				684.7027	Other
3651568	Other loudspeaker systems (not specified above)				
3651554	Loudspeakers sold separately including radio, television, and automobile radio speakers				
3651474	Preamplifier-control units	684.7030	Audio-frequency electric amplifiers and preamplifiers	684.7030	Audio-frequency electric amplifiers
	Power amplifiers				
3651475	Monophonic				
3651476	Stereophonic				
3651477	Quadraphonic				
366212	Amplifiers and preamplifiers (excluding consumer and P.A. types)				
3651555	Microphones	684.7010	Microphones	684.7010	Microphones
	Automobile radios and tape players		Radio receivers:		Solid-state (tubeless radio receivers:
3651131	AM		Entertainment broadcast bands:		Designed for motor-vehicle installation
3651132	AM-FM	685.2610	Designed for motor vehicle		Entertainment broadcast band receivers:
3651133	AM-FM stereo		installation	685.1210	AM only
3651134	AM-FM with tape player			685.1215	AM-FM only
				685.1225	Other
3651135	Automobile tape player, sold separately			685.1250	Other
					Any article described in the foregoing items 685.20 to 685.50, inclusive, if Canadian article and original motor-vehicle equipment
				685.5520	Radio receivers
					Machines not specially provided for, and parts thereof:
					Combination machines containing tape players
					Radio-tape player combinations designed exclusively for motor-vehicle installation:
					Stereo:
				678.5009	Cartridge type
				678 5012	Other, including cassette
					Tape players:
				678.5001	Audio
					Designed exclusively for motor-vehicle installation

See footnotes at end of table.

Table 6. COMPARISON OF STANDARD INDUSTRIAL CLASSIFICATION-BASED CODES, SCHEDULE B EXPORT NUMBERS, AND TSUSA IMPORT NUMBERS--Continued

Product code	Product description	Export number[1]	Product description	Import number[2]	Product description
	Home radio receivers (except high-fidelity receivers, radio-phonograph combination, and television receivers)	685.2620	Radio receivers, other than for motor vehicle installation		Entertainment broadcast band receivers
	Electrically powered				Incorporating a digital clock or timer:
	Table models (except clock)			685.1405	AM only
3651101	AM			685.1411	Other
3651102	AM-FM and FM				Incorporating a clock or timer other than digital:
	Clock models			685.1415	AM only
3651103	AM			685.1421	Other
3651105	AM-FM and FM				Other:
	Portable, battery operated				AC only:
3651121	AM			685.1425	AM only
3651124	AM-FM and FM				Other:
					Without speaker(s):
3651125	Other home radios, including consoles			685.1430	Stereo
	Receivers (tuner-amplifier combinations)			685.1436	Other
3651471	Stereophonic				Other:
3651472	Quadraphonic			685.1440	Stereo
				685.1446	Other
3651473	Tuners (AM-FM and FM)				Other:
					Broadcast band only:
				685.1450	AM only
				685.1457	AM and AM-FM
				685.1461	Other
				685.1000	Radio, receivers, other than solid-state (tubeless)
	Radio, phonograph, and tape recorder combinations	685.5385	Other than TV combinations		Radio-phonograph combinations
	Table and portable (excluding high-fidelity compact systems)			685.3620	Console/consolette
3651111	Monaural			685.3655	Other
3651112	Stereo and quadraphonic				Radio-tape recorder combinations:
	Console model				AC only:
3651118	Monaural				Cassette type:
3651119	Stereo and quadraphonic			685.4924	Stereo
					Cartridge type:
				685.4928	Other
				685.4929	Other
					Other than AC:
				685.4931	Stereo
				685.4934	Other
				685.4936	Other than AC and stereo
				685.4950	Phonograph-tape recorder combinations
					Radio, phonograph, and tape recorder combinations other than console/consolette:
					Cassette type:
				685.4962	Stereo
				685.4963	Other
					Cartridge type:
				685.4965	Stereo
				685.4966	Other
				685.4969	Other
					Other:
				685.4972	Cartridge type
				685.4974	Cassette type
				685.4990	Other
					Machines n.s.p.f., and parts thereof:
					Combination machines containing tape players:
					Radio-tape player combinations
					Other
				678.5055	Not capable of battery operation
					Other:
				678.5059	Without speakers other than headsets
				678.5062	Monaural
				678.5061	Other
					Phonograph-tape combinations and radio-phonograph-tape player combinations
					Radio, phonograph, and tape player combinations
				678.5065	Cartridge type
				678.5066	Other
				678.5067	Other
				678.5072	Combinations incorporating a citizens band (CB) transceiver
				678.5075	Other

See footnotes at end of table.

Table 6. COMPARISON OF STANDARD INDUSTRIAL CLASSIFICATION-BASED CODES, SCHEDULE B EXPORT NUMBERS, AND TSUSA IMPORT NUMBERS--Continued

Product code	Product description	Export number[1]	Product description	Import number[2]	Product description
	Phonographs and high-fidelity components		Phonographs, record changers, turn-tables, and tone arms; all of the foregoing and parts thereof:		Phonographs, record changers, turn-tables, and tone arms, and parts of the foregoing
3651401	Mechanical (acoustical) phonographs				
	Phonographs (except mechanical)				Phonographs complete with amplifier(s) and speaker(s):
3651402	Coin-operated (including remote speakers and controls)	685.3210	Phonographs, record changers, and turn-tables	685.3825	Stereo
	Portable, table and console (except high-fidelity compact and component systems)	685.3270	Tone arms, and other parts of the foregoing	685.3835	Other
3651411	Monophonic				
3651412	Stereophonic			685.3847	Automatic record changers
				685.3848	Automatic turn-tables (single records only)
				685.3850	Other record players and turn-tables
3651413	Stereo compact systems			685.3700	Tone arms; and parts of the foregoing
	Turn tables (record players)				
3651405	Automatic changer				
3651406	Manual				
3651407	Record changer mechanism (sold OEM)				
3651408	Manual turn table machanisms (sold OEM)				
3651409	Phonograph arms (sold separately)				
3679903	Phonograph cartridges and pickups				
3679905	Phonograph needles and styli				
	Consumer audio and video recorders and players (except radio, phonograph, TV, and tape recorder combinations, office recording machines, and recorder mechanisms) and other home-type electronic equipment sold separately		Tape players, and tape recorders		Tape recorders and dictation recording and transcribing machines, and parts thereof
			Audio:		Audio machines other than office type:
		685.4010	Other than office type		Cassette type:
				685.4026	AC only:
	Audio tape recorders and players, complete	685.3910	Audio tape players	685.4013	Stereo
				685.4027	Other
3651435	Reel to reel				
3651436	Cartridge			685.4028	Other
3651437	Cassette			685.4029	
[3]3662217	Broadcast, studio and related equipment Other audio equipment				Cartridge type:
					AC only:
				685.4033	Stereo
				685.4034	
				685.4038	Other
				685.4048	Other
					Machines not specially provided for, and parts thereof:
					Tape players:
					Audio:
					Other:
				678.5003	AC only
				678.5005	Other
				678.5007	
	Video recorders and players, complete		Video recorders and players		Other than audio machines:
3651441	Tape cartridge	685.3950	Video tape players		Video:[3]
3651442	Disc		Video tape recorders		
		685.4050	Color	685.4052	Color: Cartridge or cassette
		685.4058	Other	685.4055	Other
	Broadcast, studio and related equipment			685.4058	Other
[3]3662229	Other video equipment				
				685.4065	Other
					Machines not specially provided for, and parts thereof:
					Tape players
					Other
				685.0820	Color
				685.0830	Other

*Part of this code is comparable. N.s.p.f. Not specifically provided for.

[1]Source: 1985 edition Schedule B, Statistical Classification of Domestic and Foreign Commodities exported from the United States.
[2]Source: Tariff Schedules of the United States Annotated (TSUSA), 1985.
[3]Collected annually on Current Industrial Report MA36P, Communication Equipment, Including Telephone, Telegraph, and Other Equipment Systems and Equipment.

DESCRIPTION OF SURVEY

Scope of Survey. This survey covers companies engaged in the manufacture of home-type radio receivers, television sets, phonographs, high-fidelity components, and speakers in the United States. Very small firms (generally less than 10 employees) for which 1982 Census of Manufactures data were derived from administrative records of other government agencies are excluded.

Survey Methodology. The statistics in this publication were collected by mail on Bureau of the Census annual Form MA36M, Radio and Television Receivers, Phonographs, and Related Equipment. The survey panel includes all known domestic manufacturers of these products, except the very small firms excluded from the scope of the survey. Approximately 265 companies are included. No estimate is derived for the small firms excluded from the survey.

Reliability of Data. Survey error may result from several sources: (1) inability to obtain information about all cases in the survey; (2) response errors; (3) definitional difficulties; (4) differences in the interpretation of questions; (5) mistakes in recording or coding the data obtained; and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses. Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, and for data which fail logic edits. Missing figures are imputed based on yearly movements shown by reporting firms. Imputation generally is limited to a maximum of 10 percent for any one data cell. Figures with imputation rates greater than 10 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse because the actual yearly movements for nonrespondents may or may not closely agree with the imputed movements. The range of difference between the actual and imputed figures is not precisely known, but is assumed to be small. The degree of uncertainty regarding the accuracy of the published data increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

Revisions to Previous Period Data. Statistics for previous years may be revised as the result of corrected data from respondents, late reports for which imputations were made as described above, or other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

Revisions include changes to prior period data resulting from reconciliation of the results of this survey with the 1982 Census of Manufactures to correct differences in reported data between the two series and to identify and verify new establishments included in the scope of this survey. Table 3 presents a comparison of data from the two series by census product class following the reconciliation.

Adjustment for Price Change. All dollar figures included in this publication are in current dollars; i.e., they have not been adjusted for price change.

EXPLANATION OF TERMS

Quantity and Value of Shipments. The figures on quantity and value of shipments represent physical shipments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and returns. Shipments to a company's own branches are assigned the same value as comparable sales to unaffiliated customers; i.e., the value includes an appropriate allocation of company overhead and profit. Products bought and resold without further manufacture are excluded.

Manufacturers' shipments include assembly of components, regardless of whether the components are of domestic or foreign origin. This tends to understate the value of imports in table 4 relative to consumption by the degree foreign components are used for domestic manufacture.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; on the other hand, the export and import classification system is more materials oriented. Also, there are a substantial number of imported commodities which have no comparable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to the problems mentioned above, there are also the following problems affecting the comparability of the three sets of data.

Valuation. There are different methods of valuation for the three types of data:

- *Domestic Output*—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.
- *Exports*—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance and other charges to the export point.

  Estimated producers' values of exports have also been developed. These values more closely approximate the values reported for domestic output because they exclude freight, insurance, and other charges applied from the producing plant to the export point.
- *Imports*—Valued at the first port of entry in the United States. It includes c.i.f. (cost, insurance, and freight), duty, and other charges to the import point.

Duplication in Quantity and Value of Output. Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

Low-Value Import and Export Transactions. Detailed commodity information is not included for individual export shipments valued at not more than $1,000. Generally, detailed commodity information is not included for individual import shipments valued at not more than $1,000. For textiles and textile products, gloves, footwear, and miscellaneous rubber and plastics products, detailed commodity information is not included for individual import shipments valued at not more than $250. This is believed to have only negligible effects on the statistics for the bulk of the commodities.

Manufacturers' Shipments, Not Specified by Kind. The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

Time Lag Between Output and Exports. There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

"Direct" vs "Total" Commodity Exports and Imports. Export and import data do not include materials which are incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

Used Commodities. With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

Geographic Area of Coverage. Import and export data reflect the movement of merchandise into and out of U.S. foreign trade zones, the U.S. Virgin Islands, and the U.S. customs territory (includes the 50 States, the District of Columbia, and Puerto Rico).

HISTORICAL NOTE

Data on radio and television receivers, phonographs, and related equipment have been collected by the Bureau of the Census since 1952. Historical data may be obtained from Current Industrial Reports (called Facts for Industry before 1959) available at your local Federal Depository Library. A list of these libraries may be obtained from the Bureau of the Census regional offices:

Office	Telephone
Atlanta, Georgia	(404) 881-2271
Boston, Massachusetts	(617) 223-2327
Charlotte, North Carolina	(704) 371-6142
Chicago, Illinois	(312) 353-6251
Dallas, Texas	(214) 767-0621
Denver, Colorado	(303) 234-3924
Detroit, Michigan	(313) 226-7742
Kansas City, Kansas	(816) 374-4601
Los Angeles, California	(213) 209-6616
New York, New York	(212) 264-3860
Philadelphia, Pennsylvania	(215) 597-4920
Seattle, Washington	(206) 442-7828

RELATED REPORTS

The Bureau of the Census publishes the following related reports:

Series	Frequency	Title
Current Industrial Reports		
MA36E	Annually	*Electric Housewares and Fans*
MA36P	Annually	*Communication Equipment Including Telephone, Telegraph and other Electronic Systems and Equipment*
MA38B	Annually	*Selected Instruments and Related Products*
Other Industry Reports		
M3-1	Monthly	*Manufacturers' Shipments, Inventories, and Orders*
(AS)	Annually	Annual Survey of Manufactures (ASM)
(MC)	Quinquennially	Census of Manufactures

CONTACTS FOR DATRA USERS

Subject Area	Contact	Phone Number
Current Industrial Report MA36M	James L. Oliver	(301) 763-5573

Subject Area	Contact	Phone Number
Classification Systems Comparability	James Kristoff (ESD)	(301) 763-1935
Foreign Trade publications	Kathleen Puzzilla	(301) 763-5200
Census/ASM	Ted McGrath	(301) 763-5752
To order a Census Bureau publication	Customer Services (DUSD)	(301) 763-4100
International Trade Administration	E. McDonald Nyhen	(202) 377-0570

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